## APPENDIX II: China's Missile Technology Exports In The 1980s And 1990s

| COUNTRY  | TYPE OF ASSISTANCE   |
|----------|--|
| IRAN     | Ballistic Missiles   |
|          | > 8610/CSS-8   |
|          | M-9/DF-15 (China cancelled the sale under US pressure)   |
|          | Cruise Missiles  |
|          | ·  |
|          | ➤ 100 HY-2 (Silkworm)  |
|          | ➤ HY-4/C-201   |
|          | > C-601  |
|          | > YJ-1/C-801 (sales halted in October 1997)  |
|          | ➤ YJ-2/C-802 (sales halted in October 1997)  |
|          | Assistance to Iran's Indigenous Missile Programs   |
|          | Extensive production assistance for the 8610/CSS-8 missile   |
|          | Extensive production infrastructure for HY-2, C-801 and C-802 missiles (production assistance halted in 1997)  |
|          | Possible assistance to the Shahab-3 ballistic missile  |
|          | ➤ FL-10 air-launched cruise missile  |
|          | Missile Fuel   |
|          | ➤ Various propellant ingredients   |
|          | ➤ Ammonium perchlorate   |
|          | Missile Guidance and Control Technology  |
|          | Guidance kits (mid-1990s)  |
|          | Gyroscopes (mid-1990s)   |
|          | Accelerometers (mid-1990s)   |
|          | Test equipment for ballistic missiles (mid-1990s)  |
| IRAQ     | Cruise Missiles (1980s)  |
| IMAG     | > HY-2 (Silkworm)  |
|          | > C-601  |
|          | > YJ-1/C-801   |
|          | Missile Engine Testing Facility/Project 3209   |
|          | Supply of standard parts for liquid propellant engine, late  |
|          | 1980s  |
|          | Missile Fuel   |
|          | > 10 tons of UDMH, late 1980s  |
|          | > 7 tons of lithium hydride; 1989-1990; exported by the China  |
|          | Wanbao Engineering Company (CWEC)  |
|          | > Ammonium perchlorate, 1994   |
| LIBYA    | Missile Fuel   |
|          | > Lithium hydride  |
| PAKISTAN | Ballistic Missiles and Launchers   |
| PARISTAN | > 34 M-11/DF-11 missiles; stored at Pakistan's Sargodha Air  |
|          | Force Base near Lahore; delivered in November 1992   |
|          | ➤ M-11 transporter-erector-launchers (TELs)  |
|          | Possible Assistance to Indigenous Missile Programs   |
|          | Hatf-1, Hatf-2 and Hatf-3 ballistic missiles   |
|          | 10 n n 1   |
|          |  |
|          | Ammonium perchlorate, 10 tons seized in Hong Kong in 1996; Pakistan's SUPARCO was caught attempting to import the ammonium perchlorate from a company in Xian, China |

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| in Xian, China  |
|   |
| Missile Guidance  |
| > Gyroscopes  |
| > Accelerometers  |
| On-board computers  |
| Assistance to Missile Production Factory  |
| <ul><li>Rawalpindi, 40 km west of Islamabad</li></ul>   |
| ➤ Likely producing Pakistani version of M-11 missile  |
| <ul> <li>Blueprints and construction equipment, possibly</li> </ul>                                       |
| ongoing   |
| Ballistic Missiles  |
| > 30+ DF-3 (CSS-2) missiles; deliveries began in 1988;  |
| and included construction of launch complex, training,  |
| and post-sale systems maintenance   |
| ➤ In 1997, Saudi Arabia requested from China possible replacements for the aging DF-3 missiles; China did |
| not provide any replacements  |
| Ballistic Missiles  |
| <ul> <li>DF-15/M-9 missiles, Syria provided advance payments</li> </ul>                                   |
| Cancelled under US pressure in 1991; Syria possibly   |
| received test missile   |
| Assistance with Indigenous Programs   |
| > 30 tons of ammonium perchlorate in 1992   |
| > Technical exchanges   |
|   |